WHAT WE CLAIM IS:

1. A zoom optical system comprising a lens group having negative refracting power and a lens group having positive refracting power, wherein at least one lens is formed by molding of a first lens blank that provides a surface including at least an optical function surface after molding, and a second lens blank that provides a surface other than said surface including at least an optical function surface after molding, wherein the first lens blank and the second lens blank are integrated into a one-piece lens.

2. The zoom optical system according to claim 1, wherein said second lens blank has shading capability.

3. The zoom optical system according to claim 1, wherein said second lens blank is a metal, cermet or ceramics.

4. The zoom optical system according to claim 1, wherein an organic-inorganic composite material is used as an optical material for at least one optical element that forms a part of said zoom optical system.

5. The zoom optical system according to claim 1, wherein said at least one one-piece lens satisfies the following condition with respect to a thickness of the thinnest portion:

$$0.1 \text{ mm} < t < 0.5 \text{ mm} \quad \ldots (1)$$

where t is the thickness of the thinnest portion of the one-piece lens.

6. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a negative first lens group and a positive second lens group.

7. The zoom optical system according to claim 6, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi1<10 \quad \ldots (2A)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi1$ is a refracting power of the positive lens in the first lens group.

8. The zoom optical system according to claim 6, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi2<10 \quad \ldots (3A)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi2$ is a refracting power of the positive lens in the second lens group.

9. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a positive first lens group and a negative second lens group.

10. The zoom optical system according to claim 9, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi1<15 \quad \ldots (2B)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi 1$ is a refracting power of the positive lens in the first lens group.

11. The zoom optical system according to claim 9, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi 2<6 \quad \ldots (3B)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi 2$ is a refracting power of the positive lens in the second lens group.

12. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a negative first lens group, a positive second lens group and a positive third lens group.

13. The zoom optical system according to claim 12, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi 1<15 \quad \ldots (2C)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi 1$ is a refracting power of the positive lens in the first lens group.

14. The zoom optical system according to claim 12, wherein at least one positive lens in said second lens

group satisfies the following condition:

$$0.1<HH2/\phi 2<10 \quad \ldots (3C)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi 2$ is a refracting power of the positive lens in the second lens group.

15. The zoom optical system according to claim 12, wherein at least one positive lens in said third lens group satisfies the following condition:

$$0.1<HH3/\phi 3<20 \quad \ldots (4C)$$

where HH3 is a principal point spacing (mm) of the positive lens in the third lens group and $\phi 3$ is a refracting power of the positive lens in the third lens group.

16. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a negative first lens group, a positive second lens group, a positive third lens group and a negative fourth lens group.

17. The zoom optical system according to claim 16, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi 1<10 \quad \ldots (2D)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi 1$ is a refracting power of the positive lens in the first lens group.

18. The zoom optical system according to claim 16, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi 2<10 \quad \ldots (3D)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi 2$ is a refracting power of the positive lens in the second lens group.

19. The zoom optical system according to claim 16, wherein at least one positive lens in said third lens group satisfies the following condition:

$$0.1<HH3/\phi 3<20 \quad \ldots (4D)$$

where HH3 is a principal point spacing (mm) of the positive lens in the third lens group and $\phi 3$ is a refracting power of the positive lens in the third lens group.

20. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a negative first lens group, a positive second lens group, a negative third lens group and a positive fourth lens group.

21. The zoom optical system according to claim 20, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi 1<10 \quad \ldots (2E)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi 1$ is a

refracting power of the positive lens in the first lens group.

22. The zoom optical system according to claim 20, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi 2<6 \quad \ldots (3E)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi 2$ is a refracting power of the positive lens in the second lens group.

23. The zoom optical system according to claim 20, wherein at least one positive lens in said fourth lens group satisfies the following condition:

$$0.1<HH4/\phi 4<10 \quad \ldots (5E)$$

where HH4 is a principal point spacing (mm) of the positive lens in the fourth lens group and $\phi 4$ is a refracting power of the positive lens in the fourth lens group.

24. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a negative first lens group, a positive second lens group, a positive third lens group and a positive fourth lens group.

25. The zoom optical system according to claim 24, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi 1<15 \quad \ldots (2F)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi 1$ is a refracting power of the positive lens in the first lens group.

26. The zoom optical system according to claim 24, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi 2<10 \quad \ldots (3F)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi 2$ is a refracting power of the positive lens in the second lens group.

27. The zoom optical system according to claim 24, wherein at least one positive lens in said third lens group satisfies the following condition:

$$0.1<HH3/\phi 3<20 \quad \ldots (4F)$$

where HH3 is a principal point spacing (mm) of the positive lens in the third lens group and $\phi 3$ is a refracting power of the positive lens in the third lens group.

28. The zoom optical system according to claim 24, wherein at least one positive lens in said fourth lens group satisfies the following condition:

$$0.1<HH4/\phi 4<20 \quad \ldots (5F)$$

where HH4 is a principal point spacing (mm) of the positive lens in the fourth lens group and $\phi 4$ is a

refracting power of the positive lens in the fourth lens group.

29. The zoom optical system according to claim 1, which comprises, in order from an object side thereof, a positive first lens group, a negative second lens group, a positive third lens group and a positive fourth lens group.

30. The zoom optical system according to claim 29, wherein at least one positive lens in said first lens group satisfies the following condition:

$$0.1<HH1/\phi1<20 \quad \ldots (2G)$$

where HH1 is a principal point spacing (mm) of the positive lens in the first lens group and $\phi1$ is a refracting power of the positive lens in the first lens group.

31. The zoom optical system according to claim 29, wherein at least one positive lens in said second lens group satisfies the following condition:

$$0.1<HH2/\phi2<15 \quad \ldots (3G)$$

where HH2 is a principal point spacing (mm) of the positive lens in the second lens group and $\phi2$ is a refracting power of the positive lens in the second lens group.

32. The zoom optical system according to claim 24, wherein at least one positive lens in said third lens group satisfies the following condition:

$$0.1<HH3/\phi3<8 \quad \ldots (4G)$$

where HH3 is a principal point spacing (mm) of the positive lens in the third lens group and $\phi 3$ is a refracting power of the positive lens in the third lens group.

33. The zoom optical system according to claim 24, wherein at least one positive lens in said fourth lens group satisfies the following condition:

$$0.1<HH4/\phi 4<10 \quad \ldots (5G)$$

where HH4 is a principal point spacing (mm) of the positive lens in the fourth lens group and $\phi 4$ is a refracting power of the positive lens in the fourth lens group.

34. An electronic system, comprising a zoom optical system as recited in claim 1, and an electronic image pickup device located on an image side thereof.